We Claim:

1. A non-cell based method of screening for and/or identifying an RNA regulatory element comprising:

combining (i) a translation extract; (ii) an RNA test sequence; and (iii) a reporter mRNA under conditions suitable for translation of the reporter mRNA;

measuring the effect of said test sequence on the translation of the reporter mRNA, wherein a test sequence that modifies the translation of the reporter mRNA includes an RNA regulatory element.

2. The method of claim 1, wherein the combining step includes preincubating said translation extract with said test sequence; and combining the preincubated extract with said reporter mRNA.

3. The method of claim 1, wherein the combining step includes preincubating said translation extract with said reporter mRNA; and combining the preincubated extract with said test sequence.

4. The method of claim 1, wherein a test sequence which inhibits the translation of said reporter mRNA, as compared to in the absence of said test sequence, includes an RNA regulatory element.

5. The method of claim 1, wherein a test sequence which increases the translation of said reporter mRNA, as compared to in the absence of said test sequence, includes an RNA regulatory element.

6. The method of claim 1, wherein said test sequence corresponds to a sequence from the 5' UTR or 3' UTR of an mRNA of a gene.

7. The method of claim 1, wherein said test sequence corresponds to a sequence from the coding region of an mRNA of a gene.

8. The method of claim 1, wherein said test sequence is included within a gene involved in pathogenesis and/or pathophysiology.

9. The method of claim 8, wherein said test sequence is included within a gene selected from the group consisting of oncogenes, tumor suppressor genes, viral genes, genes coding for cytokines, genes coding for virokines and combinations thereof.

10. The method of claim 1, wherein said reporter mRNA corresponds to the coding sequence for one of the group consisting of firefly luciferase, renilla luciferase, click beetle luciferase, green fluorescent protein, yellow fluorescent protein, red fluorescent protein, cyan fluorescent protein, blue fluorescent protein, *beta*-galactosidase, *beta*-glucoronidase, *beta*-lactamase, chloramphenicol acetyltransferase, secreted alkaline phosphatase, combinations, derivatives and fragments thereof.

11. The method of claim 1, wherein the measuring step includes detecting a signal resulting from gene expression of said reporter mRNA.

12. The method of claim 11, wherein the signal is selected from the group consisting of enzymatic activity, fluorescence, bioluminescence and combinations thereof.

13. The method of claim 12, wherein said measuring step includes detecting enzymatic activity resulting from gene expression of said reporter mRNA, as compared to said activity in the absence of said test sequence.

14. The method of claim 1, wherein said translation extract is a cytoplasmic extract.

15. The method of claim 14, wherein said cytoplasmic extract includes a component selected from the group consisting of amino acids, tRNA, hemin, creatin kinase, KOAc, $Mg(OAc)_2$, creatin phosphate and combinations thereof.

16. The method of claim 1, wherein said translation extract is an at least substantially cell-free extract derived from cells from a species selected from the group consisting of human, yeast, bacteria, plant, animal and combinations thereof.

17. The method of claim 1, wherein the translation extract is a rabbit reticulocyte lysate.

18. A non-cell based method of screening for and/or identifying at least one test compound which modulates the ability of an RNA sequence to regulate translation of a reporter mRNA comprising:

providing an RNA sequence which regulates translation of a reporter mRNA;

combining said RNA sequence with (i) a translation extract; (ii) said reporter mRNA; and (iii) said at least one test compound under conditions suitable for translation of the reporter mRNA;

measuring the effect of said at least one test compound on the ability of said RNA sequence to regulate the translation of the reporter mRNA.

19. The method of claim 18, wherein said providing step includes contacting said RNA sequence with an *in vitro* translation system and assessing translational modification of said reporter mRNA when said reporter mRNA is introduced into said contacted system.

20. The method of claim 18, wherein said combining step includes preincubating said translation extract with said RNA sequence and said test compound; and combining the preincubated extract with said reporter mRNA.

21. The method of claim 18, wherein the measuring step includes detecting a signal resulting from gene expression of said reporter mRNA.

22. The method of claim 21, wherein the signal is selected from the group consisting of enzymatic activity, fluorescence, bioluminescence and combinations thereof.

23. The method of claim 22, wherein said measuring step includes detecting enzymatic activity resulting from gene expression of said reporter mRNA, as compared to said activity in the absence of said test compound.

24. The method of claim 18, wherein said method assesses whether said test compound inhibits the interaction between said RNA sequence and one or more components in the translation extract.

25. The method of claim 18, wherein the RNA sequence inhibits the translation of said reporter mRNA.

26. The method of claim 25, wherein said method assesses whether said test compound reverses said inhibition, as measured by an increase in translation of said reporter mRNA.

27. The method of claim 18, wherein the RNA sequence increases the translation of said reporter mRNA.

28. The method of claim 18, wherein said at least one test compound is selected from the group consisting of nucleic acids, peptides, peptide analogs, polypeptides, proteins and combinations thereof.

29. The method of claim 18, wherein said at least one test compound is an organic molecule.

30. The method of claim 18, wherein said at least one test compound is a combinatorial library of compounds or agents.

31. An *in vitro* translation system for screening for and/or identifying a test compound, which modulates the ability of an RNA regulatory sequence to regulate translation of a reporter mRNA, comprising:

a cytoplasmic translation extract;

an RNA regulatory sequence; and

a reporter mRNA;

wherein the RNA regulatory sequence modifies the translation of said reporter mRNA.

32. A method of screening for and/or identifying a test compound, which modulates the ability of an RNA regulatory sequence to regulate translation of a reporter mRNA, comprising:

providing the system of claim 31;

introducing a test compound into the system; and

determining the extent of modulation of translation of said reporter mRNA.

33. An *in vitro* translation system for screening for and/or identifying a test compound capable of reversing the inhibition of translation mediated by an RNA regulatory sequence, comprising:

a cytoplasmic translation extract;

an RNA regulatory sequence; and

a reporter mRNA;

wherein the RNA regulatory sequence inhibits translation of said reporter mRNA.

34. A method of screening for and/or identifying a test compound, which reverses inhibition of translation comprising:

providing the system of claim 33;

introducing a test compound into the system; and

determining the extent of reverse inhibition of translation of said reporter mRNA.

35. A use of a test compound identified in claim 18, or a pharmaceutically acceptable salt or solvate thereof in the manufacture of a medicine for modulating the expression of a gene comprising said RNA sequence.

36. The use of claim 35, wherein the expression of said gene is aberrant in a disease state.

37. The use of claim 35, wherein the expression of said gene causes the survival and/or progression of a pathogenic organism.

38. The use of a test compound identified in claim 18 in the manufacture of an agent for modulating the expression of a recombinant protein expressed from a construct engineered to include said RNA sequence.

39. A test compound identified according to the method of claim 18.